

# PATENT COOPERATION TREATY

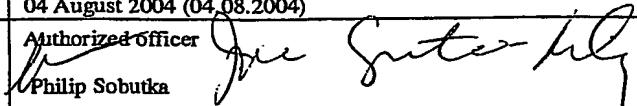
## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 19 AUG 2004

PCT

Applicant's or agent's file reference 27-005-PCT/W	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416																
International application No. PCT/US03/31515	International filing date (day/month/year) 24 October 2003 (24.10.2003)	Priority date (day/month/year) 24 October 2002 (24.10.2002)																
International Patent Classification (IPC) or national classification and IPC IPC(7): H04B 07/208; H04J 01/00 and US Cl.: 455/7																		
Applicant WIDEFI, INCORPORATED																		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>34</u> sheets, as follows:</p> <p style="margin-left: 40px;"><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table style="margin-left: 20px; border: none;"> <tr><td><input checked="" type="checkbox"/> Box No. I</td><td>Basis of the report</td></tr> <tr><td><input type="checkbox"/> Box No. II</td><td>Priority</td></tr> <tr><td><input type="checkbox"/> Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr> <tr><td><input type="checkbox"/> Box No. IV</td><td>Lack of unity of invention</td></tr> <tr><td><input checked="" type="checkbox"/> Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr> <tr><td><input type="checkbox"/> Box No. VI</td><td>Certain documents cited</td></tr> <tr><td><input type="checkbox"/> Box No. VII</td><td>Certain defects in the international application</td></tr> <tr><td><input type="checkbox"/> Box No. VIII</td><td>Certain observations on the international application</td></tr> </table>			<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
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Date of submission of the demand 21 May 2004 (21.05.2004)	Date of completion of this report 04 August 2004 (04.08.2004)																	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer  Philip Sobutka Telephone No. 703-305-4825																	

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages NONE as originally filed/furnished

pages\* 1-27 received by this Authority on 21 May 2004 (21.05.2004)

pages\* NONE received by this Authority on \_\_\_\_\_

☒ the claims:

pages 28,29 and 31 as originally filed/furnished

pages\* None as amended (together with any statement) under Article 19

pages\* 27,30 and 32-37 received by this Authority on 21 May 2004 (21.05.2004)

pages\* NONE received by this Authority on \_\_\_\_\_

☒ the drawings:

pages 1-3 as originally filed/furnished

pages\* NONE received by this Authority on \_\_\_\_\_

pages\* NONE received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☒ the description, pages None \_\_\_\_\_

☒ the claims, Nos. 48 \_\_\_\_\_

☒ the drawings, sheets/figs None \_\_\_\_\_

☒ the sequence listing (specify): None \_\_\_\_\_

☒ any table(s) related to the sequence listing (specify): None \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims <u>1-47</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-47</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-47</u>	YES
	Claims <u>NONE</u>	NO

**2. Citations and Explanations (Rule 70.7)**

Claims 1-47 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest:

Regarding claim 1, the nearest prior art as shown in Belcea fails to teach a method for managing operation of a frequency translating repeater in a WLAN, the repeater capable of establishing a first RF link having a first and second frequency channel, the WLAN having at least one other node capable of establishing a second RF line to the repeater one either the first or second frequency channel, the method comprising: establishing a management link with the other WLAN node at a higher layer of the WLAN communication protocol; and configuring at least one of the first and second RF links based on a message associated with the communication protocol and transferred on the management link between the repeater and the other node.

Regarding claim 13, the nearest prior art as shown in Belcea fails to teach a frequency translating repeater in a WLAN having at least one other WLAN node comprising: a transceiver section; a processor coupled to the transceiver and configured to: establish a first RF link having a first and second frequency channel, wherein the at least one other WLAN node is capable of establishing an RF link with the repeater; establish an in band management link with the at least one other WLAN node at a higher layer of the communication protocol; and configure at least one of the first and second RF links based on a message associated with the communication protocol and transferred on the management link between the frequency translating repeater and the other WLAN node.

Regarding claim 35, the nearest prior art as shown in Belcea fails to teach a non-regenerative frequency translating repeater having a first and second RF channel comprising: a memory; a processor coupled to the memory and configured to: receive a signal associated with a data packet on a first RF channel; translate the signal associated with the data packet to a second RF channel; and translate the signal from the second RF channel to the first RF channel with no re generation of the signal; and a modem coupled to the memory and the processor, the modem configured to control a management link between a WLAN and the non regenerative frequency translating repeater.

In response to applicants comments on the International Search Report, note that applicant's arguments were convincing regarding Belcea, as noted above.

----- NEW CITATIONS -----

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/33761

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B32B 3/10  
US CL : 428/44,105,113

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 428/44,105,113

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,820,568 A (HARPELL et al) 11 April 1989 (11.04.1989), see entire document.	All
A	US 4,204,016 A (CHAVANNES) 20 May 1980 (20.05.1980), see entire document.	All

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

12 March 2004 (12.03.2004)

Date of mailing of the international search report

14 APR 2004

Name and mailing address of the ISA/US

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Commissioner for Patents  
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Alexandria, Virginia 22313-1450

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Nasser Ahmad

Telephone No. 571-272-1487

Jean Proulx  
Paralegal

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/31515

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04B 7/208; H04J 1/00

US CL : 455/7

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 455/7,15,20,21,22; 370/315,328,338,343,344

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0089945 A1 (BELCEA) 11 July 2002 (11.07.2002) paragraphs 17,62,78,82,85,154,168	1-8,13-19,24,25,27-46
A	US 5,408,618 A (AHO et al) 18 April 1995 (18.04.1995) column 2, line 60 - col 4, line 10	1-46
A	US 2002/0018487 A1 (CHEN et al) 14 February 2002 (14.02.2002) paragraphs 12-18	1-46



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

22 March 2004 (22.03.2004)

Date of mailing of the international search report

13 APR 2004

Name and mailing address of the ISA/US

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**Continuation of B. FIELDS SEARCHED Item 3:**

APS, DERWNT, EPO, JPO

search terms: repeater, wlan, wireless local area network, configure, configurationin, configured, configuring, message, protocol, frequency